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An analytical model of SAGD process considering the effect of threshold pressure gradient

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Abstract

© 2018 Institute of Physics Publishing. All rights reserved. An analytical model is proposed for the development of super-viscous oil deposits by the method of steam-assisted gravity drainage, taking into account the nonlinear filtration law with the limiting gradient. The influence of non-Newtonian properties of oil on the productivity of a horizontal well and the cumulative steam-oil ratio are studied. Verification of the proposed model based on the results of physical modeling of the SAGD process was carried out.

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